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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,295	02/15/2002	Christopher Chang	CHAN3132/EM	8983
23364	7590	04/19/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			WILLIAMS, JOSEPH L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/075,295	Applicant(s) CHANG ET AL.	
	Examiner Joseph L. Williams	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 11-20 in Paper filed on 30 January 2004 is acknowledged.

Claims 1-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in Paper filed on 30 January 2004.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference # 300. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claim Objections

4. Claims 13-20 are objected to because of the following informalities: Regarding claim 13, line 1 of the claim (line 9 of the page), the word "The" should be replaced with "A".

Due to their dependency, claims 14-20 are necessarily included in this objection.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishino et al. (US 6,133,678).

Regarding claim 11, Kishino ('678) teaches in figure 1 and column 6, lines 20-67, a field emission display baseplate, comprising: a first substrate (1); a first conducting layer (2) locating on one surface of the first substrate; an insulating layer (8) having a plurality of holes (no number), the insulating layer locates over the surface of said first conducting layer or over partial surface of said first substrate; a second conducting layer (4) having a plurality of holes, the second conducting layer locates on the insulating

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layer; a plurality of cones (5) having at least one microtip, the cones locate one the surface of the first conducting layer inside the holes, the microtips are surrounded by the walls of insulating layer or the second conducting layer, and a plurality of connecting-conducting lines (7) locating on the peripheral parts of the first substrate; wherein the first conducting layer doesn't connect with the second conducting layer, the first conducting layer doesn't connect with the connecting-conducting lines; and the connecting-conducting lines connect second conducting layer.

Regarding claim 12, Kishino ('678) teaches a resist layer (3) sandwiched between the insulating layer and the first conducting layer (2).

Regarding claim 13, Kishino ('678) teaches in figures 1 and 7, and similar to claim 11 above, a field emission display device, comprising, a first substrate (1); a second substrate (32) coated with at least a layer of phosphor (not shown), a first conducting layer (2) locating on one surface of the first substrate; a plurality of connecting-conducting lines (5) locating on the peripheral parts of the first substrate; an insulating layer (8) having a plurality of holes (no number), the insulating layer locates over the surface of the first conducting layer, over the surface of connecting-conducting lines, or over partial surface of the first substrate; a second conducting layer (4) having a plurality of holes (no number), the second conducting layer locates on the insulating layer, a plurality of cones (5) having at least one microtip, the cones locate one the surface of the first conducting layer inside the holes, the microtips are

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surrounded by the walls of insulating layer or the second conducting layer; and a sealing gel (6) sandwiched by the second substrate and the insulating layer over the connecting-conducting lines or over the first substrate; wherein the first conducting layer doesn't connect with the second conducting layer; the first conducting layer doesn't connect with the connecting-conducting lines; and the connecting-conducting lines connect second conducting layer.

Regarding claims 14 and 15, Kishino ('678) teaches in column 2, lines 22-23 that the substrates are made of glass.

Regarding claim 16, Kishino ('678) teaches the holes are cylindrical.

Regarding claim 17, Kishino ('678) teaches the insulating layer is made of silicon dioxide (see column 2, lines 25-26).

Regarding claim 20, Kishino ('678) teaches the second conducting layer is a metal layer.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishino et al. (US 6,133,678), of record, in view of Xie et al. (US 6,084,339).

Regarding claims 18 and 19, Kishino ('678) teaches all of the claimed limitations except for the first conducting layer being made of niobium.

Further regarding claims 18 and 19, Xie ('339) teaches in column 2, lines 32-33, a field emission device comprised of, in part, a first conducting layer made of niobium for the purpose of improving the conductivity and thus the efficiency of the display.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the first conducting layer of niobium of Xie in place of the first conducting layer of aluminum in Kishino for the purpose of improving the conductivity and thus the efficiency of the display.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Williams

Examiner
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